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Maintenance

FUNCTIONAL CHECK FLIGHT



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: 940 AGS/LGG (CMSgt Royal
Lewandowski)

Certified by: 940 ARW/CV (Colonel Thomas M
Gisler, Jr)
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This instruction implements the guidance in AFRPD 21-1, *Managing Aerospace Equipment Maintenance*; AFI 21-101, *Maintenance Management of Aircraft*; AMCI 21-101, *Maintenance Management Policy*; T.O. 1-1-300, and T.O. 00-20-5. It establishes a standard procedure for the accomplishment of all functional check flight requirements. It's applicable to all personnel assigned or attached to the 940th Air Refueling Wing who have duties involving functional check flights (FCFs).

1. Responsibilities:

- 1.1. Quality Assurance in close cooperation with the Aircraft Generation Squadron (AGS) will supervise all FCFs in accordance with the appropriate dash (-) 6 inspection requirements technical order, T.O. 1-1-300 and other pertinent directives.
- 1.2. Operations Group (OG) Commander will maintain a current authorization listing of all FCF crews.

2. Procedures:

- 2.1. Flight Crew Composition. The flight crew for all FCFs will be the minimum crew required consistent with the specific check required. Structure of the flight crew will be in accordance with T.O. 1-1-300, paragraph 5, and modified to include specialists to perform in-flight checks. No passengers will be allowed.
- 2.2. Clearances. When the FCF cannot be conducted in accordance with VFR conditions due to weather, the urgency of the mission will be determined by the OG commander in accordance with T.O. 1-1-300, paragraphs 6b and 6c.
- 2.3. Functional Check Flight Area. All check flights will be accomplished along a route of flight approved by the OG commander and appropriate controlling agencies and regulations. Any flight

requirements outside this route will be cleared through Base Operations when the clearance is filed and will be noted in the remarks section of the clearance. All air work such as actuation of emergency systems will be accomplished in the flight test zone and in accordance with T.O. 1C-135A-6CF-1.

2.3.1. Emergency Fuel Dump Areas:

2.3.1.1. Primary Area: Published holding area at BAB 333° radial, 41 DME at FL250 or above.

2.3.1.2. Secondary Area: In cases of extreme emergency, pilots will coordinate fuel jettison with ARTCC and report IAW MCI 11-235, Volume 10, 940 ARW Supplement, *C/KC-135 Operations - Local Operating Guidelines*

2.3.2. Aircrews will make every effort to adhere to these guidelines and those set forth in T.O. 1C-135A-1, Section III, depending on the nature of the emergency.

2.4. Inspection and Preparation of Aircraft Maintenance Records. The crew chief will provide the Quality Assurance (QA) section with current maintenance forms, AFTO Form 781 series, when all maintenance, including preflight has been completed. Quality Assurance will review the records to verify that necessary maintenance and inspection was accomplished and required entries or transcriptions are complete.

2.4.1. A blank AFTO 781A, Maintenance Discrepancy and Work Document, will be attached to the FCF checklist (T.O. 1C-135A-6CL-1). All discrepancies discovered during the FCF will be recorded on these forms and will be kept with the FCF checklist. Upon completion, all open discrepancies will be transcribed to the AFTO Form 781A for the aircraft. QA will review the FCF checklist and the attached AFTO Form 781A for adequacy of corrective actions. After completion of the review, the checklist and AFTO Forms will be forwarded to plans and scheduling and documentation to be filed in the aircraft documents file. Crew chiefs will be allowed a time period of forty-eight (48) hours for corrective actions and/or transcribing of FCF discrepancies before forwarding FCF forms to Quality Assurance.

3. Functional Check Flight Crew Briefing:

3.1. Accomplished by the AGS production supervisor.

3.2. Purpose and extent of the flight or functional check.

3.3. Previous maintenance problems and discrepancies recorded on the aircraft, system or equipment.

3.4. Individual crew member's FCF responsibilities.

3.5. Documentation requirements for the AFTO Form 781 series forms and the Dash (-) 6 FCF checklist, when applicable.

3.6. Review aircraft weight and balance documents.

4. Functional Check Flight Procedures and Checklist:

4.1. T.O. 1C-135A-6CF-1, Acceptance and/or Functional Check Flight Procedures, will be used to conduct the FCF and T.O. 1C-135A-6CL-1 for actual required readings and remarks. When FCFs are accomplished to test specific equipment or systems, only applicable portion will be used.

4.2. The completed checklist, aircraft forms and FCF information file will be returned to Quality Assurance by the crew chief upon completion of the FCF.

5. Debriefing Procedures:

5.1. A formal debrief will be accomplished. The AGS production supervisor, QA representative, crew chief and the FCF crew will attend the debrief.

5.2. During debriefing, the checklist and aircraft forms will be reviewed to determine if all requirements were accomplished.

BETTY L. MULLIS, Colonel, USAFR
Commander